SMC Networks

Edge-corE

SWITCHING

ES4704BD

Edge-core™ Chassis Core Routing Switch

OVERVIEW

The SMC Edge-Core ES4704BD is a high performance, 4-slot, Layer 3 chassis switch which supports IPv4/IPv6. It can operate with single or dual management modules. The Slots can be any combination of network interface modules and 1 or 2 management modules. Furthermore, management modules also include network interfaces so total port density and slot usage is increased. With redundant power supplies, fans, and management modules, the SMC Edge-Core ES4704BD ensures continuous operation and is a fully redundant system. All parts of the system are hotswappable meaning that all components can be added or exchanged without interrupting the whole system. The ES4704BD is ideal for the core of a campus, enterprise networks or for the aggregation layer of an IP metropolitan networks..

FEATURES	BENEFITS
The SMC EdgeCore ES4704BD supports high port density performance.	Supports up to 12 10G ports or 156 Gigabit ports, providing flexibility and high port density
Up to 4 10G Ports per module	10G modules support up to 4 ports for link to L3 Gigabit switches or L2 Gigabit switches, aggregating them to the core layer, and preventing bottlenecks in Gigabit switches
Full Layer 3 support	Supports RIP, OSPF and BGP4+ for Unicast routing and DVMRP and PIM-DM/SM for multicast routing. VRRP is included for added redundancy
IPv6 Routing Support	The SMC EdgeCore ES4704BD supports IPv6 routing in hardware for maximum performance

TECHNICAL SPECIFICATIONS ES4704BD

PHYSICAL CHARACTERISTICS
- 4 open slots
- 1 AC power supply and 1 additional open slot for optional power supply
- Max. number of 10 Gigabit ports: 12
- Max. number of Gigabit ports: 156

SWITCH FABRIC
- Backplane Capacity: 160Gbps
- Forwarding Rate: 119Mpps
- Mac Address Table Size: 16K/Module

SIZE
- 266 x 440 x 421 mm / 10.4 x 17.3 x 16.5 in

TEMPERATURE
- Operating: 0 to 40 °C (32 to 104 °F)
- Storage: -40 to 70 °C (-40 to 158 °F)

HUMIDITY
- Operating: 10% to 90% (non-condensing)

AC INPUT
- 90 to 264 V, 50-60 Hz

L2 SWITCH FEATURES
- Auto negotiation for port speed and duplex mode
- Flow Control:
  - Provides IEEE 802.3x for full duplex mode
  - Back-Pressure flow control for half duplex mode
- Spanning Tree Protocol:
  - IEEE 802.1D Spanning Tree Protocol (STP)
  - IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
  - IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
  - MRPP(Multi-layer Ring Protection Protocol , Enhanced EAPS)
- VLANs:
  - Supports 4K IEEE 802.1Q VLANs
  - Port-based VLAN / Private VLAN/ GVRP
  - MAC/ IP subnet/Protocol-based VLAN
  - QinQ/VLAN Translation
- Link Aggregation:
  - Static Trunk or IEEE 802.3ad Link Aggregation Control Protocol
  - Max. groups:8, ports/trunk group: 2~8 ports
- Multicast:
  - IGMP Snooping,IGMP v1/2/3
  - IGMP Query/ Multicast VLAN(MVR)

L3 FEATURES
- ARP /Multi-netting, Super-netting (CIDR)
- RIPv1 RIPv2 OSPF BGP4
- DVMRP, PIM-DM , PIM-SM
- VRRP
- PBR (Policy based routing)
- DHCP/BootP relay, DHCP server
- DHCP Snooping*/Option82*

IPV6 FEATURES
- IPv6 hardware IP routing
- IPv4/IPv6 Dual Protocol
- IPv6 Tunneling
- IPv6 Routing
- Static Route, RIPng, OSPFv3, MBGP4+
- IPv6 Multicast
- MLD Snooping, MLD v1/2, PIM-SM, PIM-DM
- IPv6 Neighbor Discovery
- IPv6 ACL
- HTTP / Telnet over IPv6
- IPv6 Ping/Traceroute
- IPv6 Syslog/SNTP
- IPv6 FTP/TFTP Support
- SNMP IPv6

QoS FEATURES
- Priority Queues: 8 hardware queues per-port
- Traffic classification based on IEEE 802.1p CoS, IP Precedence, DSCP,
- TCP/UDP port number
- Diffserv
- Supports Marking and Re-marking
- Supports SWRR/ WRR /Strict scheduling
- Bandwidth Control:
- Egress rate limiting, Ingress rate limiting

SECURITY FEATURES
- Supports IEEE 802.1x port-based and MAC-based access control
- RADIUS Authentication
- TACACS+ Authentication
- Access Control List
- Prevent ARP/ND Spoofing
- SSH (1 5/ 2 0) SSL*

MANAGEMENT FEATURES

SWITCH MANAGEMENT:
- CLI via console port or Telnet
- WEB management
- SNMP v1, v2c, v3
- Firmware & Configuration:
  - Dual firmware images
  - Firmware upgrade via TFTP/FTP server
  - Support Port Mirroring
  - Supports RMON (groups 1, 2, 3 and 9)
  - Supports BOOTP, DHCP for IP address assignment
  - Supports SNTP
  - Event/Error Log/Syslog
  - sFlow

COMPLIANCES
- CE Mark
- FCC Class A
- VCCI Class A

SAFETY
- CSA/NRTL (UL60950, CSA 22.2.No 60950-00)
- TUV/GS (EN60950)
- CB

WARRANTY
- Limited lifetime

SUPPORTED MODULES
- EM4704BD-AC
  - 110V/220V AC Power Supply
- EM4704BD-M12GX-SFP
  - 12 1000Base-X ports management module (SFP interface)
- EM4704BD-M24TX4GC
  - 24 10/100Base-T ports and 4 Combo G ports management module (RJ-45/SFP)
- EM4700BD-12GT-RJ45
  - 12 ports 10/100/1000Base-T Module
- EM4700BD-12GX-SFP
  - 12 ports 1000Base-X (SFP) Module
- EM4700BD-2GX-Xenpak
  - 2 ports 10G Module (XENPAK Interface)
- EM4700BD-8GC16GX
  - 8 ports Combo G(RJ4 /SFP) plus 16 1000Base-X SFP Module
- EM4700BD-8GC16GX2XG
  - 8 ports Combo G(RJ45/SFP) plus 16 1000Base-X SFP and 2 10G XFP Module
- EM4700BD-12GT12GC*
  - 12 ports 1000BaseT with 12 ports Combo G(RJ45/SFP) Module
- EM4700BD-12GT12GC2XG*
  - 12 ports 1000BaseT with 12 ports Combo G(RJ45/SFP) and 2 10G XFP Module
- EM4700BD-24TX4GC*
  - 24 ports 10/100BaseTX(RJ45) with 4 ports Combo G(RJ45/SFP) Module
- EM4700BD-48GT*
  - 48 ports 1000BaseT Module
- EM4700BD-4XG-XFP*
  - 4 ports 10G XFP Module

* Check for the availability

CONTACT

North America
20 Mason
Irvine, CA 92618
1-800-SMC-4YOU
24/7 Technical Support

Europe/Africa
Fructuos Gelabert 6-8
08970 Sant Joan Despí
Barcelona, Spain

Check www.smc.com for your local country contact information